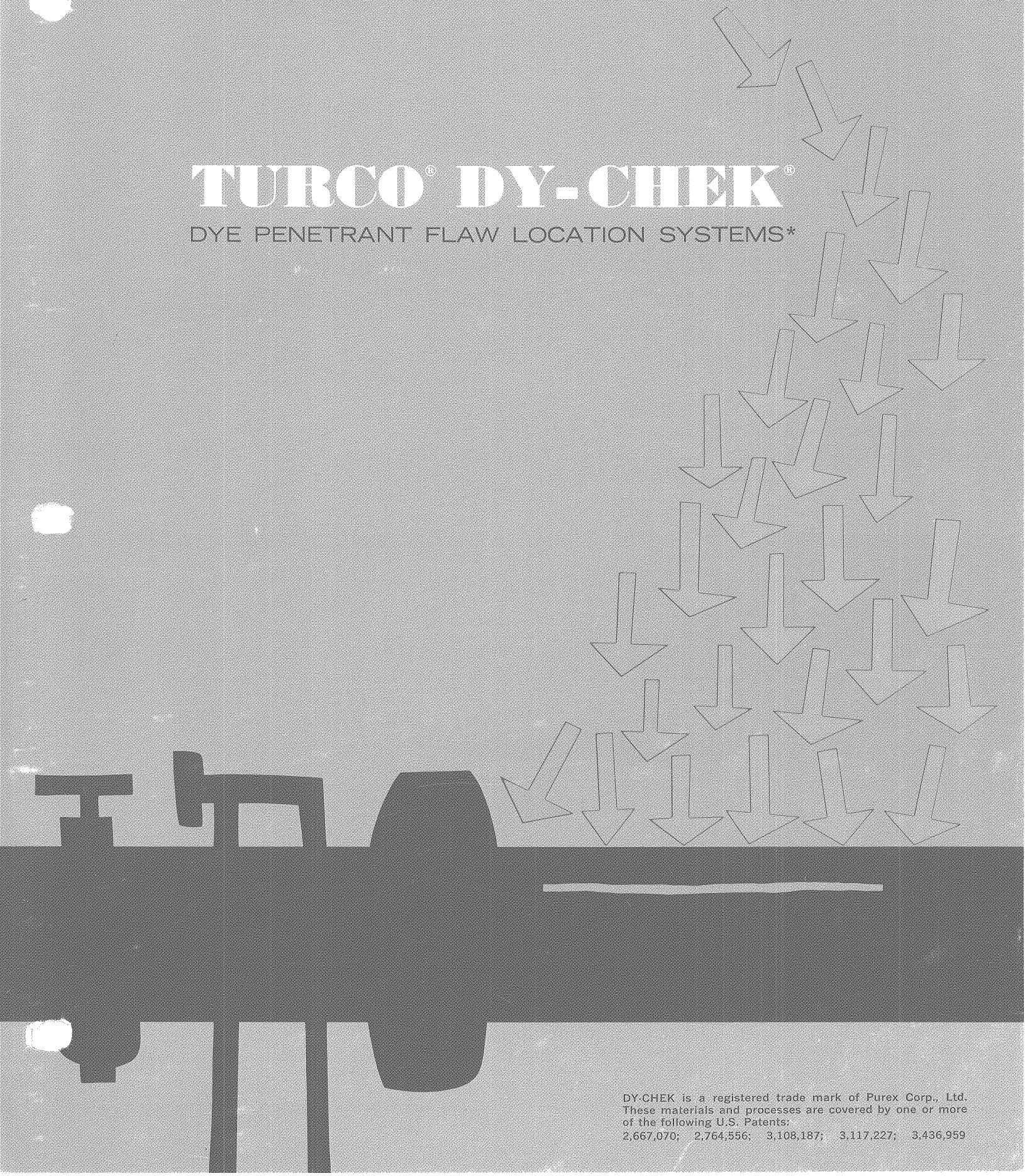
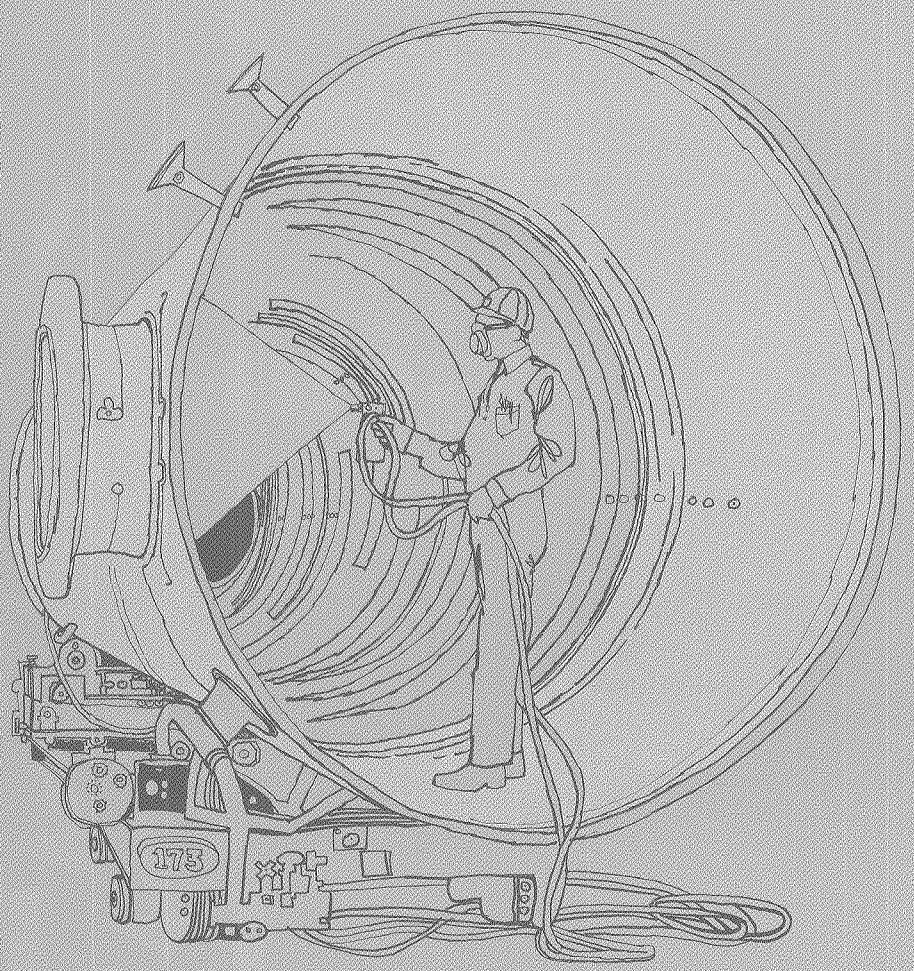
DPM 1412

TURCO® DY-CHEK®

DYE PENETRANT FLAW LOCATION SYSTEMS*



DY-CHEK is a registered trade mark of Purex Corp., Ltd. These materials and processes are covered by one or more of the following U.S. Patents:
2,667,070; 2,764,556; 3,108,187; 3,117,227; 3,436,959



TURCO DY-CHEK . . . A LEADER IN NONDESTRUCTIVE TESTING

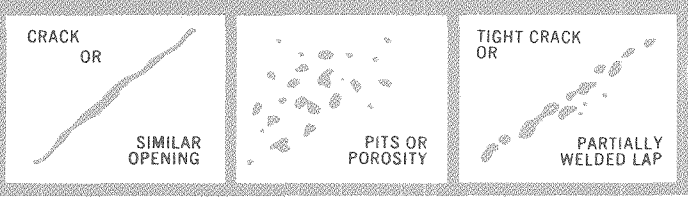
TURCO DY-CHEK is a liquid, visible penetrant inspection system developed for nondestructive testing, and is capable of locating minute flaws and leaks in metal and other nonporous surfaces . . . flaws which are either very difficult or impossible to detect without some form of visual aid. With the use of Turco Dy-Chek, flaws of all sizes and configuration can be located in seconds.

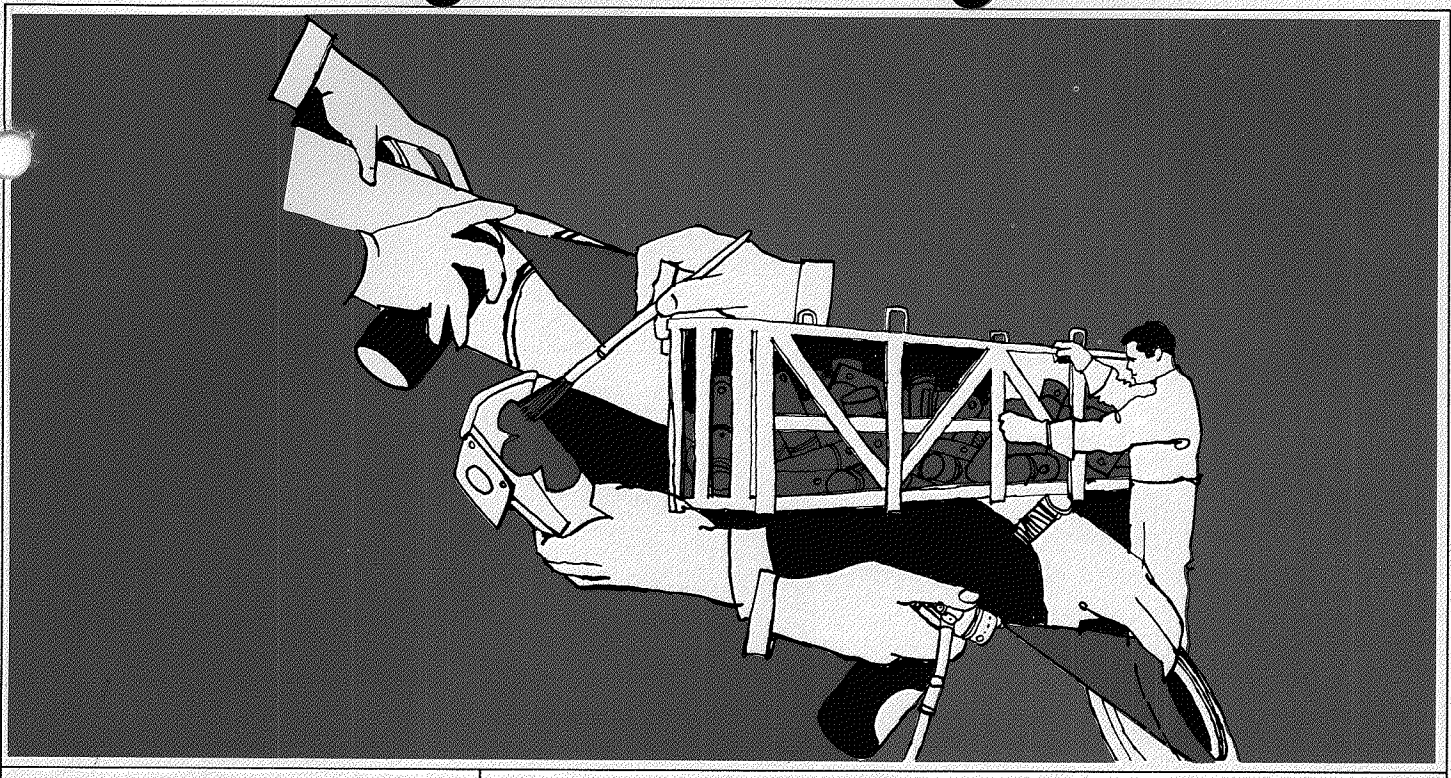
EASE OF APPLICATION. Parts are first cleaned . . . (Turco manufactures over 200 different chemical cleaners for all applications) . . . then Dy-Chek Penetrant is simply applied by spray, dip, wipe on or brush to the surface being inspected and allowed to dwell for a sufficient period. The red penetrant quickly seeks out flaws and penetrates them. Surplus penetrant is then removed, but only the surface penetrant is removed . . . the penetrant within the flaws remains secure. Dy-Chek Developer is then applied to the surface being inspected. When this material is applied over the red penetrant concealed within a flaw, it draws the penetrant out of the defect . . . the penetrant actually bleeds through the developer and gives an accurate indication of flaw location, size and shape.

QUALITY ASSURANCE. Turco Dy-Chek is ideal for manufacturing inspection . . . on-the-spot, in-progress inspections made by Turco Dy-Chek helps assure that faulty parts are discovered and rejected before they reach their finished state. The use of Dy-Chek for preventive maintenance is equally as important . . . for inspection of critical equipment and components subject to various stresses and strains which, in the interest of safety, should be inspected at regular intervals. The Dy-Chek system will locate flaws and leaks in their early stages allowing easy repair and helping prevent major breakdowns.

Skilled personnel are not required for the application of Turco's inspection procedures. Plant workers can become proficient in applying the materials in a short time. Welds, castings, and forgings can be examined rapidly. Wheels, axles, landing gear, engine parts, pipe fittings . . . big or small parts of all shapes and sizes . . . can be inspected with amazing accuracy.

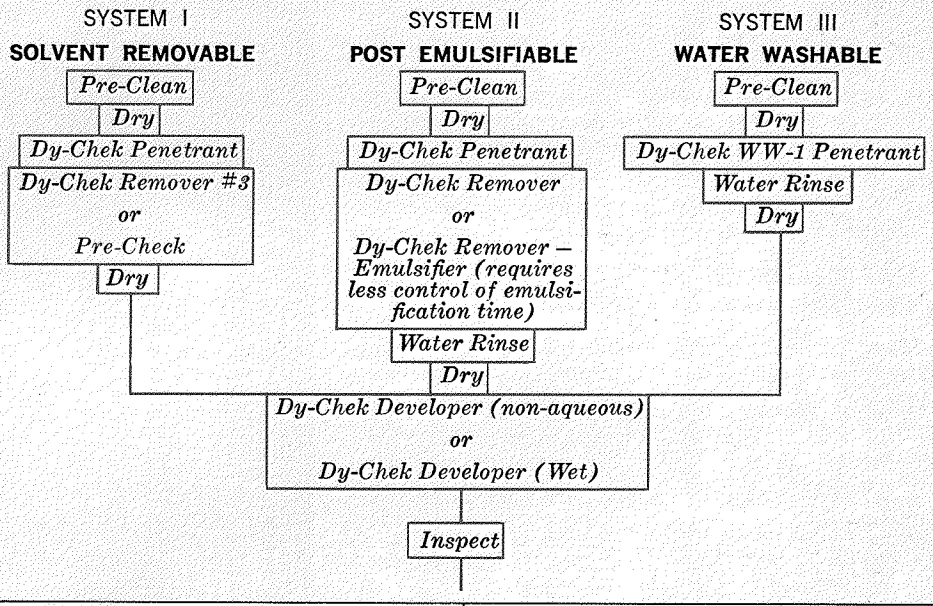
Inspecting and Interpreting Results





A VARIETY OF SYSTEMS INSURES DEPENDABILITY

Turco offers three variations of the basic visible penetrant inspection method . . . production and inspection situations vary and, therefore, a dependable inspection system must also be flexible so that it may be effectively applied. The basic variations in these systems are built around the method used to remove surface penetrant.



SYSTEM I — SOLVENT REMOVABLE
Here, solvent is used to remove penetrant and normally is a hand-wipe operation. This system is available in kit or bulk and considering the fact that no water is required, this system becomes very practical as a portable inspection system for use in the field or where water might prove harmful to parts being inspected.

SYSTEM II — POST-EMULSIFIABLE
This system utilizes emulsifiers which render surface penetrant water removable. Following a dwell time, the emulsifier and surface penetrant can be easily rinsed with water . . . there are two emulsifiers to select from, depending upon time desired for emulsification.

SYSTEM III — WATER WASHABLE
Here, an emulsifier is not required, penetrant is easily removed by a water rinse. This system offers several advantages including:

LOWER MATERIAL COST — one less product to buy

TIME SAVED — one less step involved

SPACE SAVED — less plant area is required for the inspection process.

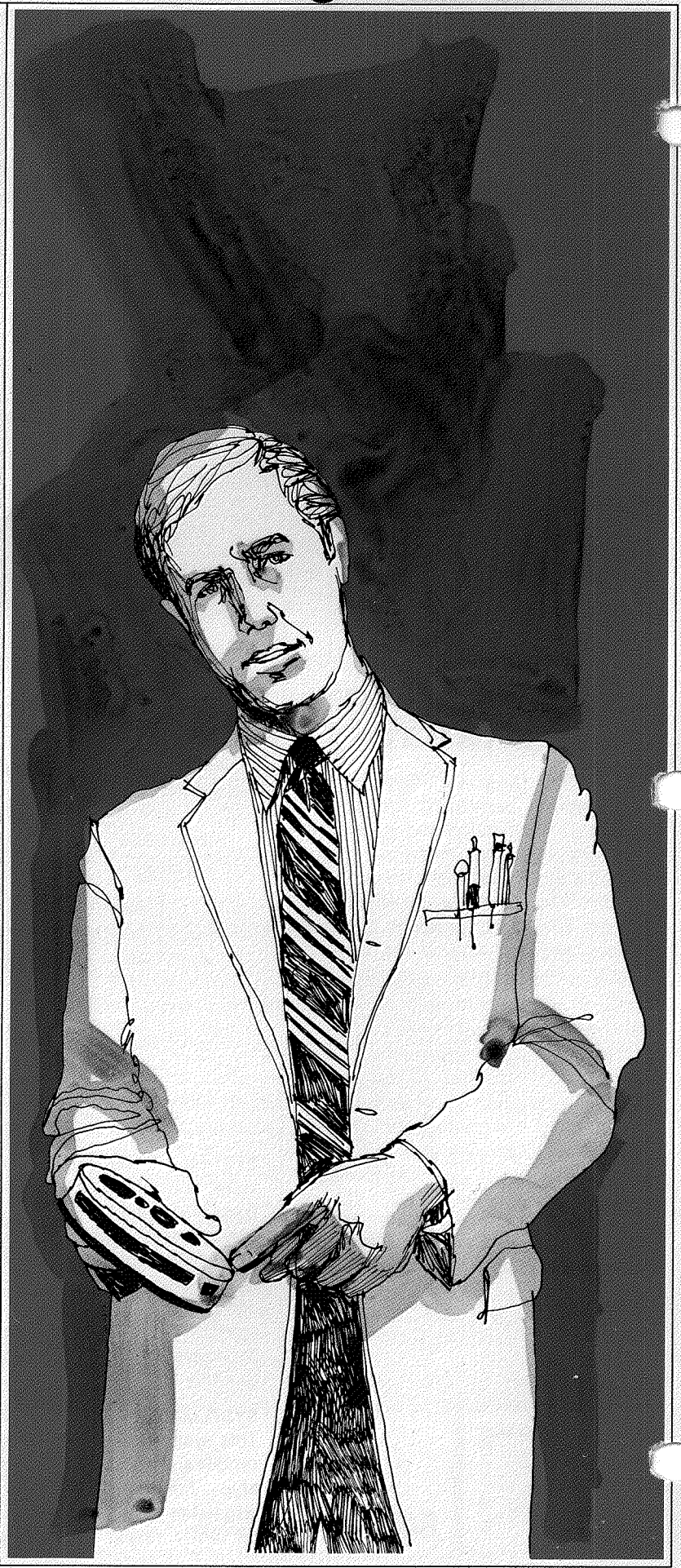
ADVANTAGES OF A TURCO DY-CHEK INSPECTION SYSTEM:

1. **RELIABLE:** Results obtained with the Dy-Chek process are reliable. Dy-Chek can be depended upon to expose discontinuities open to the surface when used as directed.
2. **SENSITIVE:** Dy-Chek detects very minute flaws, giving advanced warning of possible failure. The Dy-Chek process helps insure safe operation of equipment subject to high stresses under operating conditions, such as aircraft brakes, landing gear, rotating machinery and other equipment.
3. **VERSATILE:** Dy-Chek inspections can be performed by production line, hand wipe, or spot application processes under visible light. No special lights or dark-booth equipment are necessary for Dy-Chek. Dy-Chek is effective on both magnetic and non-magnetic surfaces.
4. **FAST:** Dy-Chek inspections can be performed in minutes.
5. **SAVES:** Expensive and time-consuming fabrication costs can be saved through the detection of flaws in parts during early stages of fabrication.
   Rework is facilitated because the location of the flaw is easily visible under ordinary white light.
6. **INEXPENSIVE:** The Dy-Chek process is inexpensive to perform.
7. **CONFORMS:** Dy-Chek products and the Dy-Chek process conform to applicable government and industrial specifications and standards.
8. **EASY:** The Dy-Chek process is easily performed with a minimum of equipment.

ONLY TURCO OFFERS COMPLETE INSPECTION SYSTEMS

Many companies offer inspection materials, but only Turco can supply total inspection services.

- Turco supplies the cleaning material required for both pre-cleaning and post-cleaning requirements.
- Turco supplies all of the penetrant inspection materials.
- Turco is well qualified in designing, engineering, constructing and installing any type of application equipment required.
- Service is the most important final step in any inspection system and Turco cannot be outdone in this field.
- Turco products are subject to rigid quality control standards to insure the effectiveness of your reliability program.



TURCO PRODUCTS

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